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CALIFORNIA AIR QUALITY STANDARDS

Approval and Promulgation of Implementation Plans

ENVIRONMENTAL PROTECTION AGENCY

[40 CFR Part 52]

CALIFORNIA AIR QUALITY STANDARDS

Approval and Promulgation of Implementation Plans

This notice of proposed rule making sets forth a transportation control plan for the Metropolitan Los Angeles Intrastate Air Quality Control Region (hereinafter, Los Angeles AQCR or South Coast Air Basin), as required by order of the U.S. District Court for the Central District of California, November 16, 1972. This proposal results from the failure of the State of California to submit an acceptable implementation plan for the attainment and maintenance of the National Primary Ambient Air Quality Standard for photochemical oxidants.

BACKGROUND

Under the Clean Air Act Amendments of 1970 (hereinafter referred to as the Act), enacted December 31, 1970 (Public Law No. 91–604, 42 U.S.C. 1857 et seq.), Congress required the States to prepare plans to implement the National Ambient Air Quality Standards promulgated on the basis of health and public welfare effects by EPA.

EPA promulgated the ambient standards on April 30, 1971. Pursuant to the statutory timetable, each State had 9 months in which to develop, adopt, and submit detailed plans for implementation of the ambient standards. The State plans submitted on January 31, 1972, were to contain emission limitations and such other measures as necessary to insure attainment and maintenance of the ambient standards, including transportation controls if necessary. (Clean Air Act, section 110(a)(2)(B).)

In most areas of the country the ambient standards could be met by the imposition of emission controls on stationary sources of pollution. EPA and the States had adequate knowledge of and experience with these types of controls. Their feasibility, effectiveness, and impact upon the sources as well as the community could be evaluated with reasonable accuracy. In other areas of the country, mobile sources were a predominant source of pollution, but the ambient standards would be met as a result of the decrease in pollution due to increasingly stringent Federal emission standards for new cars required by other sections of the Clean Air Act.

However, in certain areas the combination of controls on stationary sources and the Federal emission standards for new cars would not be sufficient. Therefore "transportation controls," i.e., measures which would reduce individual vehicle emissions and/or vehicle miles traveled, became necessary. Unlike the situation with respect to stationary sources, however, neither EPA nor the States had any real experience with these types of controls. The nature of the controls required, their effectiveness, their effect on air quality, and their social and economic impacts were essentially unknown. Accordingly, the Administrator determined that it was unreasonable to require that States include transportation controls in the plans submitted on January 31, 1972. He determined that States could instead submit a description of the transportation control measures which they were considering on that date. The submission of the actual transportation control strategies, when required, was deferred until February 15, 1973. It was anticipated that the additional year would give both EPA and the States more time to study this new problem, so that intelligent choices could be made by the States and so that EPA, in accordance with its responsibilities under the law, could make a meaningful review of the strategy selected by the State.

On May 31, 1972, in accordance with the Act, the Administrator disapproved California's plan for the Los Angeles AQCR (South Coast Air Basin) because the plan on its face did not provide for the achievement of the ambient standard for photochemical oxidants, 37 FR 10842, May 31, 1972 (40 CFR 52.238).

On September 6, 1972, in "City of Riverside, et. al. v. Ruckelshaus," Civil No. 72–2122–H, the city of Riverside, the city of San Bernardino, and various other organizations and individuals brought suit against EPA in the U.S. District Court for the Central District of California. The complaint stated that the Administrator had failed to promulgate transportation controls for the South Coast Air Basin although such controls were needed and the portions of California's plan which lacked such controls had been disapproved. Pursuant to that complaint, the U.S. District Court determined on November 16, 1972, that the Act did not permit the time for further study of the impact and effectiveness of transportation controls. Accordingly, the Court ordered the Administrator to "* * * prepare and publish in the FEDERAL REGISTER by no later than January 15, 1973, (proposed) regulations setting forth an implementation plan" for attainment of the primary ambient air quality standard for photochemical oxidants. This notice of proposed rule making is in compliance with the Court's order.

The Governor of California requested an extension to 1977 to meet the primary standard for photochemical oxidants. Therefore, this proposal is directed toward meeting that deadline.

It should be noted that the State of California is continuing to develop a transportation control strategy for the South Coast Basin. Since the State may proceed in accordance with the original schedule allowed by EPA, the State strategy is expected to be submitted to EPA in mid-February. It has been the Administrator's policy to be guided in his final promulgation by approvable segments of the State plan.

POLLUTION IN THE LOS ANGELES AQCR

The South Coast Air Basin covers a major portion of Southern California, encompassing all of Orange and Ventura Counties, the western portion of Riverside County, the southwest portion of San Bernardino County, the southern coastal portion of Santa Barbara County, and all but the extreme northeastern corner of Los Angeles County. (The air quality problems of the region are, in many ways, unique.) The region is geographically and meteorologically closed. The encircling mountains and frequent inversions hold in pollutants, and the Southern California climate provides ample sunshine to aid the formation of photochemical smog. The automobile is by fair the dominant mode of transportation. For example, in 1972 the South Coast Air Basin contained over 10 million persons and nearly 6 million motor vehicles.

This extremely high automobile population, combined with a low-density, sprawling pattern of development which distributes the population over the entire area of the basin, together make the application of transportation controls as well as the necessary alternatives, e.g., mass transit, extremely difficult in the Los Angeles region. Moreover, the area is still growing. The current rate of population growth is now a 1.7-percent increase per year. However, the automobile population grows more rapidly, at 3 percent to 4 percent per year, and gasoline consumption grows even more quickly, at 4.5 percent per year.

The Primary National Ambient Air Quality Standard for photochemical ovidents is 160μg/m3 0.08 parts per million (p.p.m.) average for a 1-hour period not to be exceeded more than once per year. The standard, promulgated on April 30, 1971 (36 FR 8186), is based on evidence of increased frequency of asthma attacks in some asthmatic subjects on days when estimated hourly average concentrations of photochemical oxidants reached 0.10 p.p.m. A level of 0.08 p.p.m. was therefore judged necessary by the Administrator to protect public health with an adequate margin of safety, as required by the Act.

In 1970, this standard was exceeded at some location in the Los Angeles AQCR on at least 250 days. The maximum 1-hour reading for oxidants in the region in 1970 was 0.62 p.p.m. in Riverside. This reading exceeded the national standard nearly eight-fold. The second highest reading was 0.58 p.p.m. During 1970 a full 10 percent of the oxidant readings taken in the basin were 0.40 p.p.m. (five times the national standard) or higher.

SUMMARY

Studies presently available to the Administrator indicate that a reduction of approximately 87 percent in projected emissions of reactive hydrocarbons is necessary to achieve the National Primary Ambient Air Quality Standard for photochemical oxidant by 1977 in the Los Angeles AQCR.

As most of the reactive hydrocarbon emissions in the South Coast Basin are attributable to motor vehicle emissions, the analysis available to EPA indicates that in addition to stringent controls for stationary sources and requirements for limiting emission of individual motor vehicles a reduction in vehicle miles traveled (VMT) by gasoline-powered motor vehicles of over 80 percent will have to be effected to achieve the ambient air quality standard for photochemical oxidants in 1977 as required by law. The proposed regulatory mechanism to accomplish the reduction in vehicle miles traveled (VMT) is gasoline rationing.

Based on the extent of analysis which it has been possible to complete so far, the Administrator has concluded that the approach proposed today, including the VMT reduction, is the only one which could be proposed at this time with any confidence that it can achieve the ambient air quality standards. Other approaches, some of which may be less extreme, appear to present problems regarding feasibility and effectiveness. The Administrator emphasizes that further analysis may demonstrate that other options are available.

Although the Environmental Protection Agency (EPA) has serious reservations as to the feasibility and desirability of the course of action proposed here, legal requirements placed on the Agency by the Act leave the Administrator with no presently available legal alternative but to propose this plan. It is clear that extreme measures will be necessary to comply with statutory requirements. Indeed, it appears that any plan that will attain the primary standard by 1977, whether it includes gasoline rationing or some other strategy to reduce VMT, will lead to significant economic disruptions and will certainly result in a major transformation in the life style of residents of the South Coast Air Basin.

No air pollution control plan for the South Coast Air Basin will be promulgated in final form until full public participation and debate, including public hearings, has taken place. The participation of State and local officials in both the development and the implementation of the plan is also of vital importance. Extensive public hearings will be held upon this and alternative proposals no sooner than 30 days from the date of this notice of proposed rule making. Dates, times, and places, will be announced in a forthcoming issue of the FEDERAL REGISTER.

It is hoped that the public debate will focus on the proposed plan, on possible alternative control plans and also on measures (such as the development of a mass transit system) which could reduce the adverse consequences of any plan. The Administrator is concerned that all positive and adverse aspects of the issue be publicly aired and weighed so that resultant decisions will be in the total public interest.

CURRENT STUDIES

The Environmental Protection Agency has published the results of an investigation of certain transportation control measures in "Prediction of the Effects of Transportation Controls on Air Quality in Major Metropolitan Areas," (The Six Cities Study), November 1972. Additional information is contained in "Evaluating Controls to Reduce Motor Vehicle Emissions in Major Metropolitan Areas, Final Report," November 1972. Both reports are available from EPA, Office of Technical Information and Publications, Research Triangle Park, N.C. 27711. Additional information is contained in the EPA document, "Control Strategies for In-use Vehicles," November 1972. This report is available from EPA, Mobile Source Pollution Control Program, 401 M Street SW., Washington, DC 20460. Specific studies to limit automobile emissions and usage in the Metropolitan Los Angeles Intrastate Air Quality Control Region are currently being done under EPA contract. The results of these studies will be available in February 1973, and preliminary results were used in the development of the proposed regulations.

TRANSPORTATION CONTROL ALTERNATIVES

The Administrator's analysis of the air quality problems of the South Coast Air Basin indicates that if all available measures are taken to reduce reactive hydrocarbon emissions from individual motor vehicles and stationary sources, the ambient air quality standard for photochemical oxidants will still be exceeded in the basin approximately 90 days per year in 1977. These 90 days will occur between the months of May and October. The analysis further indicates that motor vehicles, notably automobiles, will be the predominant source of reactive hydrocarbons after all available measures to reduce the emissions of individual vehicles and stationary sources have been taken. Further control measures to meet the ambient air quality standards must therefore consist of reductions in motor vehicle use, or vehicle miles traveled (VMT). A VMT reduction of over 80 percent is required to achieve compliance with the ambient air quality standards in 1977. Lesser reductions are needed in subsequent years as a result of the Federal motor vehicle emissions control program. However, the analysis indicated that VMT reductions of up to 50 percent may be needed as late as 1935.

The required VMT reductions can be obtained by several alternative means:

(1) Reduce VMT by the required amount during the entire period, May to October, through increased use of mass transit, increased car pooling, vehicle free zones, gasoline rationing, increasing the cost of motor vehicle use, limiting the number of automobiles and motorcycles registered, land use controls, or a combination of these.

(2) Forecast up to 24 hours in advance the days on which the ambient air quality standard for oxidants will be exceeded, and use emergency regulatory means to prohibit the use of motor vehicles (or all but certain classes of motor vehicles) on those days. (Intermittent control)

(3) Through application of one or more of the measures listed in (1), reduce VMT enough (perhaps 40 percent) to bring the number of days the ambient air quality standard is violated to a level substantially below 90 days (perhaps to 20 to 25 days). Apply the emergency measures described in (2) on those days for which the air quality standard is forecast to be violated (partial intermittent control). (The number of days per year on which these emergency measures must be taken can be expected to decline as the prevalence in the vehicle population of vehicles with 1975 Federal emission controls increases.)

While intermittent or partial intermittent controls may provide potentially attractive alternatives, the effectiveness of such controls, including the technical feasibility of adequately forecasting the need for emergency measures, is uncertain at this time. Various measures to reduce VMT on a continuing basis may be available but present substantial questions as to effectiveness and feasibility. Only gasoline rationing is presently considered to be demonstrably effective to achieve compliance with the ambient air quality standards by 1977. It is expected that the magnitude of needed VMT reductions will decrease beyond 1977 as the prevalence in vehicle population of automobiles with Federal 1975 emissions controls increases, but it does not appear that at any time would Federal 1975 emissions controls alone result in achievement of the ambient standards.

PROPOSED CONTROL STRATEGY

The Administrator proposes to require controls on stationary sources and retrofit devices and inspections on automobiles as described below, and to reduce VMT by a system of gasoline rationing, the system to be effective during the smog season, May through October. The amount of rationing may be different for different months, up to an expected maximum of 82 percent. The rationing system may be enforced at the individual vehicle operator's level, with gas coupons required to purchase gasoline. Or it may be enforced at the manufacturer's level only, with price controls at the retail level (to prevent windfall profits) and all gasoline sold on the basis of first-come-first-served. Public comment is invited on these options, and on questions of implementation, including eligibility for coupons, and transferability of coupons. Comment is is also invited on the possibility of rationing gaseous fuels

PROPOSED CONTROLS ON STATIONARY SOURCES

Controls to prevent hydrocarbon emissions will be imposed on a variety of sta-

tionary sources. The Los Angeles County Air Pollution Control District (APCD) has made changes in its restrictions (Rule 66) on solvent use. We propose that the controls in the amended regulation apply to the entire South Coast Basin. Vapor recovery systems that prevent evaporation of gasoline into the air will be required for service stations. In addition, a change in the substance used in industrial "degreasing" operations will be required. Finally, a vapor recovery system that prevents evaporation of solvents into the air will be required of dry cleaners. Should additional stationary source controls prove feasible and desirable, they may be proposed at a later date.

The EPA is currently carrying on an investigation of the the adequacy of the local air pollution control district regulations exempting certain organic compounds from control. It is anticipated that these regulations (such as Rule 66, Los Angeles County) will be reevaluated prior to 1975 after extensive additional experimental studies.

PROPOSED CONTROLS ON MOBILE SOURCES

Due to their substantial contribution to hydrocarbon emissions in the South Coast Basin (1,056 tons/day in 1970 vs. 195 tons/day from stationary sources), transportation sources, principally automobiles, also must be controlled. Calculations by EPA indicate that the 1970 mobile emissions are significantly different from those contained in the Implemetation Plan submitted by California in February 1972. The difference is attributable to more accurate emission factors that have recently become available (see "An Interim Report on Motor Vehicle Emission Estimation," Kircher and Armstrong, EPA, October 1972, and available from the Office of Land Use Planning, EPA, Research Triangle Park, N.C. 27711). As a result of these calculations, the hydrocarbon emissions from all sources in 1970 are significantly less than in the plan (1,250 tons/day vs. 1,590 tons/day reactive HC). The revised emissions values are being incorporated by the State into its present calculations.

Although the Federal emission standards for new cars will impose very stringent emission limitations on new autos beginning in 1975 and 1976, the limitations will not be adequate to meet the national ambient standard in the South Coast Air Basin by the deadline of July 1977, since by that time on more than 20 to 30 percent of the vehicle population will be 1975 or later cars.

Additional controls will include retrofit devices, installed on pre-1975 automobiles, inspection programs, and gaseous fuel conversion of fleet vehicles. The State of California will require vacuum spark advance disconnection (VSAD) on most 1955 to 1970 cars, and positive crankcase ventilation (PCV) on most 1955 to 1970 cars.

The following controls are proposed by EPA. All light- and heavy-duty gasoline-powered vehicles will be required to be inspected annually using a loaded emissions test (i.e., dynamometer loading test), a test that simulates actual driving conditions. Vehicle owners will be required to have any maintenance performed which is needed to insure that all pollution control devices on the vehicle work properly and the vehicle operates at low pollution levels.

Evaporative controls to prevent evaporation of gasoline from the gas tank and carburetor will be required as retrofit on all 1966 to 1969 model year light-duty gasoline-powered vehicles and on 1966 to 1972 model year heavy-duty gasoline-powered vehicles. A further requirement will be the installation of an oxidizing catalyst on all 1966 to 1974 model year light- and heavy-duty gasoline vehicles.

Finally, all 1971 to 1974 model year light and heavy duty vehicles in all fleets of over 10 vehicles will be required to convert to run on gaseous fuels.

PROPOSED REDUCTION IN VMT

Reducing the emissions of each car is not enough to meet and maintain the national standards. The vast number of cars in the basin offsets much of the emissions reductions gained by control devices on individual cars. The combined effect of all the controls to be placed on stationary sources and automobiles mentioned above will reduce the number of days on which the oxidant standard is exceeded to about 90 days per year. In order to meet the more stringent requirement of the law, limitations must be placed upon the amount of driving done in the South Coast Basin.

The highest oxidant reading in 1970 in the South Coast Basin was 0.62 p.p.m., at Riverside, and the plan proposed by the Administrator must be capable of reducing hydrocarbon emissions sufficiently that the reading would not exceed 0.08 p.p.m. To do this, in addition to imposing the controls over stationary and automotive sources described above, VMT must be reduced by approximately 82 percent for the peak period. Reductions will be effected by a system of gasoline rationing effective during the months of May through October. (Public comment is invited on the possibility of also rationing gaseous fuels.)

The following table is a summary of the effect of each element of the proposed strategy on the overall reduction necessary. The uncontrolled emissions in 1977 are projected to be 691 tons per day of reactive hydrocarbons. The total allowable emissions to meet the 0.08 National Standard are 161 tons per day. All calculations are based on 1970 air quality data as 1970 is the year for which the emissions inventory is available. There is no reason to believe that 1970 was a year of unusually high oxidant concentrations. The 0.62 p.p.m. maximum oxidant value used here is the same as that used by the State to evaluate emission reductions measures after excluding a higher reading whose validity was challenged.

COMPILATION OF CONTROL STRATEGY EFFECTS ON JUNE 30, 1977

	Tons per day	Percent of total reduction due to each control
Stationary source emissions without control strategy	140	
Expected reductions:		
a. Dry cleaning vapor recovery	−6	1
b. Degreaser substitute	−25	5
c. Other stationary rule strengthening	−45	9
Stationary emissions remaining	64	
Motorcycle emissions without control strategy	30	
Expected reductions	0	
Motorcycle emissions remaining	30	
Aircraft emissions without control strategy	35	
Expected reductions	−11	2
Aircraft emissions remaining	24	
Mobile emissions from on-highway light and heavy duty vehicles and from gasoline marketing operations without control strategy	486	
Expected reduction:		
a. Gasoline marketing vapor control	−37	7
b. VSAD and PCV retrofit	−13	2
c. Inspection and maintenance	−28	5
d. Vehicle evaporative control retrofit	−19	4
e. Gaseous fuel conversion	−8	2
f. Oxidizing catalyst retrofit	−70	13
g. Gas rationing	−269	51
Mobile emissions remaining	42	
Total emissions without control strategy	691	
Total reductions	−531	100
Total emissions remaining	160	

The regulations proposed herein implement the basic control strategy. Supplemental regulations will be proposed at a later time.

Additional technical information is contained in: Technical Support Document for the Proposed Transportation Control Strategy for the Metropolitan Los Angeles Intrastate Air Quality Control Region, available from the Region IX Office, Environmental Protection Agency, 100 California Street, San Francisco, CA 94111.

ECONOMIC AND SOCIAL IMPACT OF THE LOS ANGELES TRANSPORTATION CONTROL PLAN

Congress recognized that achievement of the goals of the Clean Air Act would have a significant impact on many urban areas. A quantitative assessment of the impact of the plan on the economic and social fabric of the community has not been possible due to the lack of time and the innate complexity of the issue. However, we have tried to describe the type of impacts which would occur. First, vehicle owners may have to assume the direct costs of emission abatement equipment to bring their vehicles into compliance. Second, reduction in the mobility of workers and consumers could have a major impact on the economic fabric

of the community. Third, interference with the ability of citizens to move as freely will alter the lifestyle of the region. Obviously, the severity of the impact depends on the degree of vehicle usage restrictions, on the manner that direct costs of abatement equipment are financed, and the degree to which the effects can be ameliorated, particularly through the development of a mass transit system.

DIRECT COSTS TO AUTOMOBILE OWNERS

Elements common to all of the transportation control strategies considered are retrofitting of light-duty vehicles, an inspection and maintenance program to insure proper functioning of abatement equipment and emission control devices on gasoline marketing equipment. The cost of control devices could range from $200 to $400. The annual cost of inspection/maintenance and the increased cost of gasoline caused by marketing controls is estimated to be $5 to $15.

If a sizable share of these costs falls on individual automobile drivers, the burden will weigh more heavily on low-income families. This effect is exacerbated by the fact that older cars, subject to higher abatement equipment costs, tend to be owned by low-income families.

EFFECT ON THE ECONOMIC FABRIC OF THE COMMUNITY

The direct and indirect effects of the plan on the economy of the basin are obviously dependent on the extent of the reduction in VMT.

Wage and salary earners. If VMT reductions resulted in workers missing work, loss of income could result. Such a loss of income would have a corresponding impact on purchasing power affecting business sales. If a mass transit system could be developed to replace the use of autos in work-related trips (⅓ of VMT), then the income loss could be minimized.

The monetary cost to the worker of shifting from the auto to mass transit would depend on the degree of transit fare subsidization.

Service and retail industry. The impact on service and retail establishments will depend on the ability of a mass transit system to service nonwork trips. Further study is clearly needed to assess how well and at what cost a transit system could fulfill this task. We would expect, however, that it is easier to design a transit system to carry work-related trips.

The use of autos for nonwork-related trips depends on the control strategy. Gas rationing places a limit on the number of miles traveled. Intermittent controls limit travel during crisis periods but allow travel at other times. Intermittent controls would have less of an impact on buying activities by consumers if people can tailor their nonwork trips to correspond with noncrisis periods. People may be able to delay shopping and recreation trips for days, thus alleviating the impact of decreased mobility on sales. Alternatively, service and retail establishments may be able to tailor sales hours to nonpeak, noncrisis periods.

The adverse effect on service and retail sales also depends critically on the ability of individuals to economize on nonwork trips and still shop and engage in recreation activities. We simply do not know the extent to which nonwork trips can be combined or eliminated resulting in a significant decrease in the number of miles traveled without a deterioration in the standard of living.

Manufacturing, wholesale trade and the distribution system. Maintenance of the system to distribute goods is critical to the viability of the economy, especially for life-sustaining necessities.

Large trucks are already largely diesel powered and would be allowed to operate under the proposed plan. Fleet vehicles could convert to gaseous fuel at a cost of $500 to $800 per vehicle. Smaller gasoline powered trucks and vehicles would have to be retrofitted with control devices. Their operation would, however, be restricted under gas rationing or under intermittent controls during crisis periods.

Cost of doing business may rise to an unknown extent. Business may also be faced with increased pressure for higher wages and salaries as workers try to offset increased costs to the individual resulting from the transportation control plan. It is not known whether such cost increases will be significant enough to affect the competitive position of firms in the South Coast Air Basin, causing them to lose sales both within the South Coast Air Basin and on goods now produced within the basin and sold to other markets.

Time limitations have made it impossible to investigate effects on specific industries. Some industries will be adversely affected while other will experience an increase in sales. For instance, the burden would fall very hard on service stations and automotive supply outlets. On the other hand, the demand for mass transit and communication facilities will increase. Even with more time, it is not clear that a reasonable estimate of the impact on specific industries could be made.

TAX REVENUE IMPLICATIONS

The transportation control plan will have direct and indirect effects on local, State, and Federal tax revenues. Some illustrative impacts are cited below.

It is not clear whether property taxes collected in the South Coast Air Basin will rise or fall. It seems certain that property values will change depending on location. For example, property near shipping and work zones will increase in value while that in suburban vicinities will decrease.

Excise, sales, profit, and income taxes would probably decline if purchasing power in the South Coast Air Basin diminishes. Excise taxes from gasoline would certainly fall. However, declines in revenues related to some forms of spending (gasoline) will be offset to some degree by increased expenditures for other goods.

The effect on State and local budgets will also depend on whether subsidies and/or new taxes (parking, gasoline) related to the transportation control plan will be instituted.

SUMMARY OF IMPACTS

Maintenance of the economic fabric of the South Coast Air Basin requires:

(1) Workers being able to get to and from their jobs so that production and labor income can be maintained.

(2) Sufficient commercial vehicular mobility to allow the distribution system to function effectively.

(3) Sufficient mobility to roughly maintain the present pattern and level of spending (shopping, recreation, etc.).

The inability to perform any of these basic economic functions would cause serious dislocations to the South Coast Air Basin economy leading to the loss of jobs, which in turn leads to lower purchasing power, and drops in sales.

The viability of the economy may be adversely affected under any significant reduction of VMT. The monetary cost of improved air quality will be significant, although how seriously this might affect industry is undetermined. How serious the impact will be depends critically on supplementary policy actions designed to maintain the standard of living especially:

(1) The development of a mass transit system to substitute for automobiles.

(2) The extent of subsidization of abatement equipment and a mass transit system.

(3) The degree to which people are able to economize on their use of the automobile and still perform the functions which support their standard of living.

EPA EFFORTS TO MITIGATE THE EFFECTS OF PROPOSED REGULATIONS

The combined effect of these proposed regulations, together with the California Implementation Plan, will eliminate the danger to human health and welfare that exists in the South Coast Air Basin from air pollution. They will, however, have a great economic and social impact. The Administrator will make every effort possible to mitigate the effects of his final promulgation. He will be in contact with the Department of Transportation and other departments as necessary. The Administrator of EPA will request that the departments and agencies give special attention to the needs of the South Coast Air Basin for stategies to reduce VMT and for mass transit to replace the automobile travel eliminated by the proposed controls, aid to those whose businesses are damaged by restricted automobile travel, and aid to those whose jobs are affected by the proposals (particularly those in the automobile service industries, such as service stations and mechanics).

THE NEED FOR MASS TRANSIT

The development of large-scale mass transit facilities in the Los Angeles area is essential to any effort to mitigate the disruptions that can be caused by significant reductions in automobile use. A

public mass transportation system that can absorb the travelers displaced by sizable reductions in gasoline consumption or vehicle miles traveled will have to be considerably more extensive than the system now existing in Los Angeles. The existing Los Angeles Rapid Transit District system consists of about 1,500 buses. The maintenance of reasonable mobility of the commuter will require many times this number of buses together with many service improvements to provide viable alternative transportation modes. Although the Administrator may not have authority to direct Los Angeles to provide expanded mass transit facilities, he is firmly of the belief that such expanded facilities are essential to the success of any air pollution control strategy for the South Coast Air Basin. The Administrator therefore is conducting an investigation of the needs and possibilities for transit expansion in the basin and he encourages and will provide all possible support to efforts by Federal, State, local governmental, and private groups to expand the mass transit facilities in the basin.

The Administrator recognizes that the present low density, sprawling land use pattern in the Los Angeles area is not conducive to the efficient use of mass transit. The long-term problems of attaining and maintaining high levels of transit service and usage would be considerably eased through the application of public policy measures to promote the centralization and corridorization of activities that generate large demands for transportation. The time period required for such policy measures to take effect prohibits their use by the Administrator to achieve the ambient air quality standards by 1977. In addition, such measures would not eliminate the need for many of the emissions control measures proposed here. However, proper land use policies would greatly assist the long-term implementation of such emissions control measures as VMT reductions.

PUBLIC COMMENTS SOLICITED

Although the Administrator has concluded that the proposed plan is the only approach available to him at the present time that is demonstrably capable of achieving compliance with the requirements of the Act, further analysis may demonstrate that more appropriate options are available. He therefore desires to obtain the comments and suggestions of the public on the problems of achieving the ambient air quality standards in the South Coast Air Basin. Comments are particularly invited pertaining to measures that may be taken by Federal, State, or local authorities to support or supplement the proposed air pollution control strategy for the basis (e.g., expanded mass transit), means of implementing these measures, and the comparative social and economic effects of alternative pollution control measures.

Questions also exist as the EPA's authority and capability for actual implementation of this proposal and of alternatives. These questions include the extent to which State or local governments should be required to perform functions contemplated by the proposal and the difficulties involved in Federal or State enforcement of the plan.

Extensive public hearings will be held on this and alternative proposals no sooner than 30 days from the date of this notice of proposed rule making. Dates, times, and places will be announced in a forthcoming issue of the FEDERAL REGISTER.

The Administrator's final promulgation of transportation controls for the South Coast Basin will be profoundly influenced by the comments and testimony he receives, as well as by the approvable strategies submitted by the State in mid-February as part of the State plan. These influences, and the additional analysis of alternative strategies that can be made in the time between this proposal and final promulgation, may lead the Administrator to adopt final regulations that differ in important ways from this proposal.

SUBMITTAL OF WRITTEN COMMENTS

Interested persons may participate in this rule making by submitting written comments, preferably in triplicate, to the Regional Administrator, EPA, Region IX, 100 California Street, San Francisco, CA 94111. All relevant comments received not later than March 23, 1973, will be considered. Receipt of comments will be acknowledged, but substantive responses to individual comments will not be provided. Comments received will be available for public inspection during normal business hours at the EPA Region IX Office, and at locations to be announced in the Los Angeles area. The changes proposed by this notice with appropriate modification will be effective on January 22, 1973. This notice of proposed rule making is issued under the authority of section 110(c) and 301(a) of the Clean Air Act (42 U.S.C. 1857 et seq.).

Dated: January 15, 1973.

WILLIAM D. RUCKELSHAUS,
Administrator,
Environmental Protection Agency.

It is proposed to amend Part 52 of Chapter I, Title 40, of the Code of Federal Regulations as follows:

Subpart F—California

1. Section 52.229 is amended by adding paragraphs (b) through (j), as follows:

§ 52.229 Control strategy and regulations: Photochemical oxidants (hydrocarbons), Metropolitan Los Angeles Intrastate Region.

* * * * *

(b) *Regulation for control of evaporative emissions.* (1) For purposes of this paragraph:

(i) "Evaporative control device" means a device installed on a motor vehicle to prevent the escape of gasoline vapor from the gasoline tank and carburetor.

(ii) "Registered" as applied to a motor vehicle, means that such motor vehicle is duly licensed for general operation on public roads or highways by the appropriate agency of the Federal Government or by the State.

(2) This regulation is applicable in those portions of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Santa Barbara Counties contained within the Metropolitan Los Angeles Intrastate Air Quality Control Region (AQCR) in the State of California. The requirements of this regulation shall be effective commencing on January 1, 1976.

(3) Prior to January 1, 1976, an evaporative control device of at least 85 percent efficiency which is approved by the Administrator shall be properly installed, in good working order, and in operation on all registered light-duty gasoline-powered vehicles of model years 1966 through 1969 and all registered heavy-duty gasoline vehicles of model years 1966 through 1972. Approved evaporative control devices shall be installed on a schedule determined by the Administrator.

(4) After January 1, 1976, the following shall apply in the areas specified in paragraph (b)(2), of this section:

(i) The State of California shall not register light-duty vehicles which do not comply with the provisions of paragraph (b)(3) of this section.

(ii) No owner of light-duty vehicles shall operate or allow the operation of such vehicles which do not comply with the provisions of paragraph (b)(3) of this section.

(c) *Regulation for gaseous fuel conversion.* (1) For purposes of this paragraph:

(i) "Fleet vehicle" means any one of ten (10) or more light- and heavy-duty vehicles operated by the same person(s) or business and used principally in connection with the same occupation or related occupations.

(ii) "Gaseous fuel" means liquified or pressurized petroleum or natural gases which are used as fuel for light-duty vehicles.

(2) This regulation is applicable in those portions of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Santa Barbara Counties contained within the Metropolitan Los Angeles Intrastate Air Quality Control Region (AQCR) in the State of California. The requirements of this regulation shall be effective commencing on January 1, 1975.

(3) All registered gasoline-powered fleet vehicles of model years prior to 1975 shall be equipped for and operated on gaseous fuel by the effective date of this regulation. Conversion of such fleet vehicles for use of gaseous fuel shall be on a schedule determined by the Administrator.

(4) After January 1, 1975, the following shall apply in the areas specified in paragraph (c)(2) of this section:

(i) The State of California shall not register vehicles which do not comply with the provisions of paragraph (b)(3) of this section.

(ii) No owner of fleet vehicles shall operate or allow the operation of such vehicles which do not comply with the provisions of paragraph (c)(3) of this section.

(d) *Regulation for yearly inspection and maintenance.* (1) For purposes of this paragraph: "Inspection and maintenance" means a program to reduce emissions from in-use vehicles through identifying vehicles that need emissions control related maintenance and requiring that maintenance be performed.

(2) This regulation is applicable in those sections of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Santa Barbara Counties contained within the Metropolitan Los Angeles Intrastate Air Quality Control Region (AQCR) in the State of California. The requirements of this regulation shall be effective commencing on January 1, 1975.

(3) All registered gasoline-powered light- and heavy-duty motor vehicles shall be inspected annually for emissions and, as necessary, maintained by the owner in order to pass the inspection. This shall be done by personnel, facilities and procedures which shall be proposed and promulgated by the Administrator.

(4) After January 1, 1975, the following shall apply in the areas specified in paragraph (d)(2) of this section:

(i) The State of California shall not register light-duty vehicles which do not comply with the provisions of paragraph (d)(3) of this section and procedures promulgated pursuant thereto.

(ii) No owner of light-duty vehicles shall operate or allow the operation of such vehicles which do not comply with the provisions of paragraph (d)(3) of this section.

(e) *Regulation for oxidizing catalyst.* (1) For the purposes of this paragraph: "Oxidizing catalyst" means a device installed in the exhaust system of the vehicle that utilizes a catalyst and, if necessary, an air pump to reduce emissions of hydrocarbons and carbon monoxide from that vehicle.

(2) This regulation is applicable in those sections of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Santa Barbara Counties contained within the Mertopolitan Los Angeles Intrastate Air Quality Control Region (AQCR) in the State of California. The requirements of this regulation shall be effective commencing on January 1, 1975.

(3) All registered gasoline-powered light- and heavy-duty motor vehicles of model years 1966 through 1974, shall be equipped with an appropriate oxidizing catalyst exhaust retrofit in accordance with paragraph (e)(2) of this section, approved by the Administrator.

(4) After January 1, 1975, the following shall apply in the areas specified in paragraph (e)(2) of this section:

(i) The State of California shall not register light-duty vehicles which do not comply with the provisions of paragraph (e)(3) of this section.

(ii) No owner of light-duty vehicles shall operate or allow the operation of such vehicles which do not comply with the provisions of paragraph (e)(3) of this section.

(f) *Regulation for purchase of gasoline.* (1) For purposes of this paragraph:

(i) "Control period" means a portion of a calendar year in which gasoline sales are regulated.

(ii) "Retail outlet" means any service station, filling station, garage, store or other place of business at which gasoline is transferred directly to consumers in the regular course of business.

(2) This regulation is applicable in those portions of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Santa Barbara Counties contained within the Metropolitan Los Angeles Intrastate Air Quality Control Region (AQCR) in the State of California. The requirements of this regulation shall be in effect commencing May 1, 1975, and shall remain in effect through October 31, 1975. The regulation shall be effective in the same control periods during each calendar year thereafter, until such time as the Administrator determines the regulation to be no longer necessary for the attainment and maintenance of the national standard for photochemical oxidants (hydrocarbons).

(3) During the control periods, as specified in paragraph (f)(2) of this section, the sale of gasoline to retail outlets and to the owners and operators of motor vehicles shall be controlled by directions of the Administrator, EPA.

(4) The amount of gasoline to be controlled shall be determined by the Administrator no later than 30 days prior to the effective date of a control period. This determination shall be based on the hydrocarbon emission reduction required for the attainment and maintenance of the national standard for photochemical oxidants in Metropolitan Los Angeles Intrastate AQCR.

(g) *Volatile organic compound loading facilities.* (1) This regulation is applicable in those portions of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Santa Barbara Counties contained within the Metropolitan Los Angeles Intrastate Air Quality Control Region (AQCR) in the State of California. The requirement of paragraph (g)(2) of this section shall be effective commencing July 1, 1973.

(2) No person shall load or allow the loading of volatile organic compounds having a vapor pressure of 1.5 pounds per square inch absolute or greater, under actual storage conditions, into any tank truck or trailer, railroad tank car, locomotive, aircraft, stationary storage tank with a capacity greater than 5 gallons from any loading facility unless such tank or loading facility is equipped with a vapor collection and disposal system, or its equivalent, properly installed, in good working order, and in operation. Loading shall be accomplished in such a manner that all displaced vapor and air will be vented only to the vapor disposal system. A means shall be provided to prevent liquid organic compound drainage from the loading device when it is removed from the hatch, or to accomplish complete drainage before such removal. The vapor disposal portion of the system shall consist of one of the following:

(i) An absorber system or condensation system with a minimum recovery efficiency of 90 percent by weight of all the volatile organic compound vapors and gases entering such disposal system.

(ii) A vapor handling system which directs all vapors to a fuel gas system.

(iii) Other equipment of at least 90 percent efficiency, provided plans for such equipment are submitted to and approved by the Air Pollution Control Officer.

Intermediate storage vessels may be used prior to disposal of vapors under paragraph (g)(2) (i), (ii), or (iii), provided they are so designed as to prevent release of vapors at any time during use.

(3) Notwithstanding paragraph (g)(2) of this section, no person loading or allowing the loading of the above specified compounds in the above specified storage vessels from the above specified loading facilities, any of which were in existence on the effective date of this regulation, or in the process of being installed for use on said effective date, shall be subject to the provisions of paragraph (g)(2) of this section until January 1, 1974: *Provided, however,* That such person is hereby required to file on or before July 1, 1973, a compliance schedule with the Administrator showing how the person will bring his operation into compliance with paragraph (g)(2) of this section on or before January 1, 1974. Failure to file such compliance schedule or abide by its terms shall render the prohibition contained in paragraph (g)(2) of this section immediately applicable to such person on July 1, 1973, or on the date of said person's failure to abide by said compliance schedule, whichever is later.

(h) *Control of drycleaning solvent evaporation.* (1) For the purposes of this paragraph: "Drycleaning operation" means that process by which an organic solvent is used in the commercial cleaning of garments and other fabric materials.

(2) This regulation is applicable in those portions of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Santa Barbara Counties contained within the Metropolitan Los Angeles Intrastate Air Quality Control Region (AQCR) in the State of California. The requirements of this regulation shall be effective commencing on January 1, 1974.

(3) No person shall operate a drycleaning operation unless the uncontrolled organic emissions from such operation have been reduced at least 85 percent.

(4) Drycleaning operations emitting less than three (3) pounds per hour and less than 15 pounds per day are exempt from this regulation.

(5) If incineration is used as a control technique, 90 percent or more of the carbon in the organic compounds being incinerated must be oxidized to carbon dioxide.

(6) Drycleaning operations using solvents considered nonreactive by Rule 66 part (k) of the Los Angeles APCD current regulations are exempt from this regulation.

(i) *Degreasing operations.* (1) For the purposes of this paragraph: "Degreasing" means the operation of using an organic solvent as a surface cleaning agent prior to fabricating, surface coating, electroplating or any other process.

(2) This regulation is applicable in those portions of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Santa Barbara Counties contained within the Metropolitan Los Angeles Intrastate Air Quality Control Region (AQCR) in the State of California. The requirements of this regulation shall be effective commencing on January 1, 1974.

(3) No person shall use trichloroethylene (TCE) degreaser as a degreasing solvent.

(j) *Organic solvent usage: Federal regulation replacing parts of Rule 66 of Los Angeles, Orange, and San Bernardino Counties, Rule 36 of Santa Barbara County, Rule 69 of Riverside County, and Rule 66 of Ventura County.* (1) This regulation is applicable in those portions of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Santa Barbara Counties contained within the Metropolitan Los Angeles Intrastate Air Quality Control Region (AQCR) in the State of California. This regulation is effective immediately upon promulgation.

(2) Subparagraph 1 of Rule 66 of Los Angeles, Orange, and San Bernardino Counties, Rule 36 of Santa Barbara County, and Rule 69 of Riverside County, and subparagraph 8 of Rule 66 of Ventura County as contained in the Local Air Pollution Control District Regulations for the South Coast Air Basin, Implementation Plan for the State of California, is amended by replacing subsubparagraph 5 (subsubparagraph e in the case of Ventura County), and adding in place thereof the following subsubparagraphs 5, 6, and 7 (e, f, and g in the case of Ventura County): [i The provisions of this rule shall not apply to:]

* * * * *

5. The use of any material, in any article, machine, equipment or other contrivance described in sections (a), (b), (c) or (d), if:

(i) The volatile content of such material consists only of water and organic solvents, and

(ii) The organic solvents comprise not more than 20 percent by volume of said volatile content, and

(iii) The volatile content is not photochemically reactive as defined in section (k), and

(iv) The organic solvent or any material containing organic solvent does not come into contact with flame.

6. The use of any material, in any article, machine, equipment or other contrivance described in sections (a), (b), (c), or (d), if:

(i) The organic solvent content of such material does not exceed 20 percent by volume of said material, and

(ii) The volatile content is not photochemically reactive as defined in section (k), and

(iii) More than 50 percent by volume of such volatile material is evaporated before entering a chamber heated above ambient application temperature, and

(iv) The organic solvent or any material containing organic solvent does not come into contact with flame.

7. The use of any material, in any article, machine, equipment or other contrivance described in sections (a), (b), (c), or (d), if:

(i) The organic solvent content of such material does not exceed 5 percent by volume of said material, and

(ii) The volatile content is not photochemically reactive as defined in section (k), and

(iii) The organic solvent or any material containing organic solvent does not come into contact with flame.

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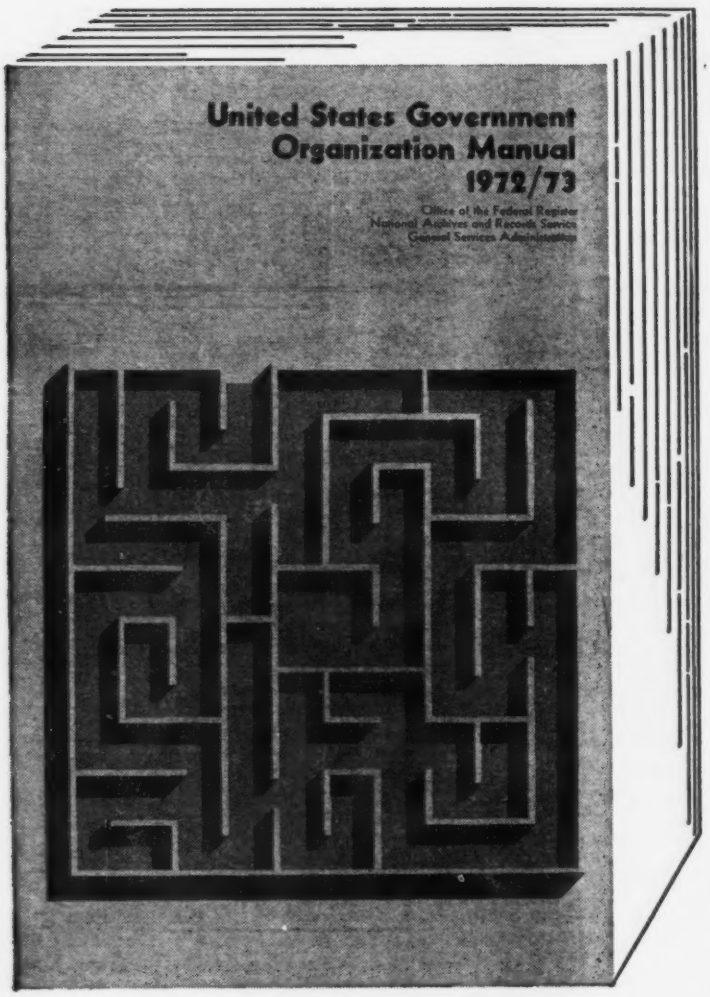

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